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(54) **METHOD OF SELECTIVE SEPARATION OF SEMICONDUCTING CARBON NANOTUBES, DISPERSION OF SEMICONDUCTING CARBON NANOTUBES, AND ELECTRONIC DEVICE INCLUDING CARBON NANOTUBES SEPARATED BY USING THE METHOD**

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(57) **ABSTRACT**

According to example embodiments, a method includes dispersing carbon nanotubes in a mixed solution containing a solvent, the carbon nanotubes, and a dispersant, the carbon nanotubes including semiconducting carbon nanotubes, the dispersant comprising a polythiophene derivative including a thiophene ring and a hydrocarbon sidechain linked to the thiophene ring. The hydrocarbon sidechain includes an alkyl group containing a carbon number of 7 or greater. The hydrocarbon sidechain may be regioregularly arranged, and the semiconducting carbon nanotubes are selectively separated from the mixed solution. An electronic device includes semiconducting carbon nanotubes and the foregoing described polythiophene derivative.